

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 3, 7, 14, 18, 22, and 26, drawn to a regeneration method comprising use of a screen for sieving.

Group II, claim(s) 4, 8, 15, 19, 23, and 27, drawn to a regeneration method utilizing a difference in ease of rolling.

Group III, claim(s) 5, 9, 16, 20, 24, and 28, drawn to a regeneration method utilizing a difference in ease of crushing.

Claims 1, 2, 6, 10-13, 17, 21, and 25 are generic in terms of the restriction.

2. The inventions listed as Groups I, II, and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the common technical feature is a method of regenerating a catalyst comprising taking a deteriorated catalyst-containing component comprising a component substantially inert to the reaction out of a fixed bed reactor, separating out the inert component, and regenerating the catalyst. However, the common technical feature is found in the prior art. Kotani et al. (JP2002-338543) discloses a process for regenerating a deteriorated catalyst by removing said catalyst from a fixed bed reactor and regenerating the

Art Unit: 4116

catalyst. See paragraphs [0010]-[0011] of Kotani et al. Yokoyama et al. (JP2002-136881) discloses a process for regenerating a catalyst by separating a catalyst-containing component into organic fibers (inert to the reaction) and a catalyst component. See claim 1 of Yokoyama. It would be obvious to one of ordinary skill in the art to separating the inert component of a catalyst-containing component in order to increase the efficiency of the regeneration. (See machine translation of documents attached and cited in PTO-892) Therefore the common technical feature of Groups I, II, and III is not a special technical feature, as it is found in the prior art. Therefore, Groups I, II, and III do not have a common special technical feature, and therefore lack unity.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species I: a method of regenerating a catalyst of molybdenum, bismuth, and iron which is used in a process for subjecting propylene, isobutylene, or tertiary-butanol to a catalytic vapor-phase oxidation reaction in order to produce an unsaturated aldehyde.

Species II: a method of regenerating a catalyst of molybdenum and vanadium which is used in a process for subjecting an unsaturated aldehyde to a catalytic vapor-phase oxidation reaction in order to produce an unsaturated carboxylic acid.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims

subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Lack of unity of invention may be directly evident "a priori," that is, before considering the claims in relation to any prior art, or may only become apparent "a posteriori," that is, after taking the prior art into consideration. For example, independent claims to A + X, A + Y, X + Y can be said to lack unity a priori as there is no subject matter common to all claims. In the instant case, the species do not comprise overlapping subject matter as Species I utilizes a patentably distinct catalyst used in a patentable distinct process (where different reactants are reacted to produce different products) (i.e. in Species I, a catalyst of molybdenum, bismuth, and iron which is used in a process for subjecting propylene, isobutylene, or tertiary-butanol to a catalytic vapor-phase oxidation reaction in order to produce an unsaturated aldehyde.) that that in Species II (which utilizes a catalyst of molybdenum and vanadium which is used in a process for subjecting an unsaturated

Art Unit: 4116

aldehyde to a catalytic vapor-phase oxidation reaction in order to produce an unsaturated carboxylic acid).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. ZIMMER whose telephone number is (571)270-3591. The examiner can normally be reached on Monday - Friday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4116

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ajz

/Vickie Kim/
Supervisory Patent Examiner, Art Unit 4116